

DEKALB COUNTY
STANDARD SPECIFICATIONS
FOR
RESIDENTIAL REHABILITATION

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STANDARD SPECIFICATIONS
FOR
RESIDENTIAL REHABILITATION

SECTION I

GENERAL

1. SCOPE of work shall include all labor, materials, equipment, drawings, and services necessary for the Proper completion of the rehabilitation of the property identified in the work write-up.
2. THE WORK WRITE-UP shall take precedence over the basic specifications and when in conflict, the material, equipment, workmanship, etc., called for in the work write-up will be required.
3. THE CONTRACTOR is responsible for all permits and applicable fees. The contractor shall provide and maintain for the duration of the work, temporary toilet facilities for the use of workmen. The contractor shall be responsible for the acts and omissions of his employees and sub-contractors and shall employ only qualified persons, skilled in the job which is assigned to him.
4. THE OWNER shall provide utilities as necessary at no cost to the contractor when the property is occupied during the performance of the work.
5. THE DRAWING of floor plans are for diagram and illustrations only and are not to scale nor do they show all of the work required, exact dimensions or construction details.
6. CHANGES in work, including substitutions of material and changes in the scope of workmanship will not be made unless it is found to be necessary or desirable. Any changes proposed by either the contractor or the owner shall be in writing, stating the cost change, and agreed to by the contractor, the owner and the LPA, before any change in work is started.
7. MATERIALS shall be new, in good condition and of the grade required by the work write-up or specifications unless otherwise agreed to. Materials damaged in shipment or prior to owners acceptance shall be replaced at the contractor's expense.
8. WORKMANSHIP shall be done in accordance with the trades standards as "Workmanlike Manner" or "Acceptable Standards of Workmanship."
9. REPAIRS shall be made to all surfaces damaged by the contractor resulting from his work under this contract at no additional cost to the owner. Where "repair" of an existing item is called for in the work write-up, the item or feature (wall, floor, door, etc.) is to be placed in "Equal to New Condition" either by patching or replacing. (Taking into consideration the fact that existing structures cannot be "Restored as New," and that some lines and surfaces cannot be level, plumb, true and without slight irregularities). All damaged, decayed, missing, or rotted parts shall be replaced and loose parts shall be secured or replaced so that the finished work shall match the adjacent work in design and dimension. Such patching or replacement shall be made to blend with existing work so that the patch or replacement is inconspicuous.
10. INSPECTION of the work by authorized inspectors shall be facilitated by the contractor during normal working hours. All work performed shall be subject to the inspectors approval and acceptance.
11. SUBCONTRACTORS shall be bound by the terms and conditions of this contract insofar as it applies to their work, but this shall not relieve the General Contractor from the full responsibility to the owner for the proper completion of all work to be performed under this agreement. The General Contractor shall not be released from his responsibility by a sub contractual agreement he may make with others nor shall anything contained in the contract documents create any contractual relation between any subcontractor and the owner.

SECTION I continued

12. BIDS OR PROPOSALS will be submitted at the bidders risk and the owner reserves the right to reject any or all bids or proposals.
13. CODES All work performed shall be in accordance with applicable local codes and subject to their regulations. Where no local codes have been adopted, all work shall conform to the Georgia State Construction Codes.
14. TRADE NAMES are used in the Basic Specifications to establish quality and type of material required; exact material to be used on a specific property may be described in the work write-up for that specific property thereby overriding the specifications.
15. WHEN ADJACENT PROPERTY is affected by any work done under the contract, it shall be the contractors responsibility to take whatever safeguards or precautions necessary for the protection to the adjacent property and to notify the owner thereof of such actions.
16. CLEAN UP and removal of all debris and materials resulting from his work, shall be the responsibility of the contractor who will, upon completion of his work, leave the premises in broom clean condition.
17. COMPLY with HUD'S "Lead-Base Paint Poisoning" Prevention Act.

SECTION II

DEMOLITION

- a. The contractor shall Complete demolition work as indicated on the drawings or in the work write-up.
- b. All debris resulting from demolition operations shall be removed as it accumulates and not allowed to be stored on site.
- c. Debris shall not be burned on the site.
- d. Demolition shall be conducted in a safe and workmanlike manner.
- e. Portions or parts of the structure or property not to be demolished, and intended to remain intact, shall be repaired or replaced.
- f. All surplus materials to be removed shall become the property of the contractor and shall be removed from the premises unless otherwise directed.

SECTION III

CONCRETE WORK

1. The concrete mix shall be one part Portland cement, 2 parts clean washed sand, and 5 parts clean gravel by volume. The water shall not exceed 8 gallons per bag of cement, and shall be potable.
2. No concrete shall be poured when the temperature of the surrounding air is below forty degrees F without taking protective measures from freezing.

SECTION III continued

3. Concrete in footing shall have an ultimate compressive strength of not less than 2500 pounds per square inch at 28 days.
4. Yard pavement shall be 4" thick with a float and broom finish.
5. Floors shall be 4" thick with a steel trowel finish poured of no less than a 3,000 pound concrete mix.
6. Footings shall be a minimum of 8" thick and not less than 1 1/2 times the pier or foundation projection and shall be on virgin soil.
7. All concrete shall meet ACI Standard 301-72.

SECTION IV

A. MASONRY

1. Tuck Pointing

Cracks in masonry shall be tuck pointed as follows:

Cut away defective mortar to a depth of 1/2" with hand or power tools. Remove all loose material. Pre-hydrate mortar by mixing all ingredients dry, then mix again adding only enough water to produce a damp unworkable mix which will retain its form when pressed into a ball. After one to two hours, add sufficient water to bring it to the proper consistency; that is, somewhat drier than conventional masonry mortar. To insure a good bond, wet the mortar joints thoroughly before applying fresh mortar.

B. MORTAR TYPE

1. 1rpe N = 1 part Portland cement, 1 part type S hydrated lime and 6 parts sand, proportioned by volume.
2. Pack mortar tightly in thin layers until joint is filled, then tool to a smooth concave finish to match existing mortar work.
3. All areas are to be left clean and free from deleterious substances.
4. Color may be added to match existing mortar. Retempering of mortar shall not be allowed. Use of lime or shrinkage inducing lignins shall not be allowed.

C. WALL MASONRY, including foundations, chimneys and piers as described on the work write-up shall include the following:

1. Wall masonry shall match existing.
2. Items built into masonry walls to include joint reinforcement, anchors into adjoining surfaces, and other items shown or required by the work.

SECTION IV continued

3. Rework existing chimneys by rebuilding from roof up or tuck pointing chimney and repairing fireplace including damper if fireplace is to be used, or, unused and deteriorated, chimney shall be removed to within 2 feet of the roof line and properly capped. All interior openings shall be sealed with masonry material.
4. Wall ties shall be 22 gauge, installed at each bearing point, a maximum of 24" O.C.
5. Foundations, masonry piers and curtain walls shall include the installation of a concrete footing as detailed in Section III.
6. Proper tooling of all joints.
7. Clean up and protection of adjoining and surrounding surfaces.
8. Provide weep holes maximum of 4' O.C.
9. Provide full head and bed joints.

D. GENERAL

1. All work will conform to best masonry trade practices and in accordance with code requirements for type wall.
2. No masonry shall be installed or repaired when the temperature is below 40 F without taking protective measures from freezing.
3. Installation shall be plumb, true to line, with level and accurately spaced courses. Mortar joints shall not exceed 1/2" unless existing work requires larger joints to match.
4. Cleaning shall be accomplished by the use of stiff brushes.
5. Acids or other cleaning agents shall not be used without explicit consent of the LPA and only as recommended by the manufacturer.

E. PIERS

Concrete Block Piers shall be a minimum of 3" x 16" on proper footings. Maximum height of piers shall be 4 times the least dimension of block (plus cap block) for hollow block and 10 times the least dimension of block (plus cap block) for solid block.

SECTION V

A. CARPENTRY

Framing lumber shall be grade marked; Douglas Fir, Const. grade or better; of Southern Pine, stud grade or better, of adequate size and dimension to meet span tables as specified in the SPIB lumber table.

1. Bearing partition stud walls shall not be less than 2" x 4" studs, set with long dimension perpendicular to the wall, a maximum of 16" on center.

SECTION V continued

2. All openings shall have double studs. Headers shall be constructed of two pieces of framing material set on edge. Corners will be constructed of three full length studs.
 3. Double top plates shall be installed on walls and bearing partitions. Framing shall be constructed so as to accommodate the proper installation of trim, cabinets, plumbing, heating ducts and other attached work. Single plates are permitted where trusses are used provided trusses rest directly over stud.
 4. Framing shall fit closely; set to line and level indicated and fastened in place rigidly. Framing members shall not be cut, notched, or bored more than 1/4 of their depth without adequate approved reinforcing. Boring shall be in the middle 1/3 of the member. Floor joists shall not be cut, notched or bored more than 1/6 of their depth and shall not exceed 2" in diameter and shall be in the end 1/3 of span only.
 5. Floor joist spacing shall be no more than 16" on center when applying 25/32" flooring directly to the joist. Joists may be spaced 24" O.C. provided minimum of 5/8" subfloor is used.
- B. SUBFLOOR shall be plywood or common boards.
1. A minimum of 5/8 plywood sub-floor shall be used for areas that are to be covered in resilient tile, linoleum or carpet.
 2. Boards not exceeding 8" width or less than 3/4" thickness may be used for subfloor. Boards shall be nailed with 8D common or 6D threaded nails.
 3. Allow 1/2" clearance at walls on all subfloor. Apply with outer plies at right angles to joists. Stagger end joints of adjacent panels and locate end joints over center line of supports. Plywood panels to be continuous over two or more spans. Fifteen pound felt shall be installed between the sub-floor and underlayment or finish flooring.
- C. UNDERLAYMENT shall be grade stamped Underlayment Grade.
1. A minimum 3/8" underlayment may be installed over existing floor and/or subfloor. Underlayment Grade plywood shall be used in kitchens, baths and laundry areas.
 2. All joints shall be staggered with respect to panel joints in subfloor. Provide approximately 1/32" spacing at joints where panels butt. Nail with 6D common shank nails 6" C.O. at all edges and 8" O.C. over bearings. All floor joints (sub-floor and underlayment) shall meet and be secured over joists.
 3. Underlayment shall be level, smooth, free from defects and suitable for the finish floor covering.
 4. Plywood Wall Sheathing shall be applied vertically with the ends extended to top plate and sills. Nailing schedule same as underlayment.
 5. Roof Sheathing. Repairing of roof includes replacing deteriorated, inadequate and missing components of the roof structure including roof decking, rafters gable studs, collar beam, ridge board or any other inadequate member.

SECTION V continued

6. If new sheathing is required, it shall be 1/2" plywood or 3/8" plywood with clips, with exterior glue, provided the rafters are no more than 24" O.C. or 3/4" boards to match existing sheathing. All sheathing shall be securely nailed, even, sound and thoroughly clean and dry. Rafters shall be properly braced before roofing is applied.
7. Leveling of floors as specified in the work write up shall be accomplished to the extent feasible and practicable. In no case shall the variation in the floor exceed 3/4" in 12 feet. The contractor shall repair all damage to the structure that may occur as a result of leveling.
8. Adequate backing and deadwood shall be installed to accommodate the proper fastening of gypsum drywall, bath accessories and fixtures, etc.
9. Material shall be stored and protected on site in a manner which prevents warping, absorption of moisture or damage to the material.
10. Framing material in direct contact with slab or masonry or within 8" of the soil or otherwise subject to moisture, shall be pressure treated and shall be grade stamped as such.
11. Girders within 12" of the soil and joists within 18" of the soil shall be pressure treated lumber. (If these members are to be replaced during rehabilitation of the structure.)
12. Shop drawings shall be furnished as required in the work write-up.

D. FINISH CARPENTRY AND MILLWORK

1. Finish lumber shall be of a species suitable for its intended use, kiln dried B, or better, of adequate dimension, free from tool marks and objectionable defects. Approved factory made finger joints are permitted for painted finish but not allowed for natural finish. Interior trim shall match existing, adjacent or adjoining work in design and dimension unless specifically stated otherwise. Nails shall be set and puttied.
2. Wood Doors where replacement is called for in the work write-up shall be:
Exterior: 1 3/4" solid core of stock size and design unless work write-up specifies that they match existing doors or openings, and shall meet requirements of Georgia State Energy Code for Buildings. Replacement includes: damaged or worn door jambs, door stops, thresholds, casings, hardware and weather-stripping when existing components cannot be restored to normal conditions by repairing. Doors shall be plumb with 1/8" clearance at head, jamb and threshold and adjusted to open, close and lock properly.
3. Screen doors shall be of wood or aluminum as specified, complete with aluminum screen wire, closer, hinges and latch, fitted to existing opening, of better grade residential quality.
4. Interior: 1 3/8" minimum thickness, paint grade unless work write-up specifies "match existing doors," or where doors are to be stained of finished natural. Replacement includes all components when existing components cannot be restored to normal condition by repairing. Doors shall be plumb with 1/8" clearance at head, jamb and threshold, etc.
5. Repair Existing Door: Make repairs necessary to existing door and its components to restore to normal condition as above. (Interior, exterior and screen door repair).

SECTION V continued

E. HARDWARE shall be repaired or replaced as follows:

1. Interior doors shall be installed with tow butt hinges, 3 1/2" x 3 1/2" and privacy locks or passage locks, properly mortised. Bath room doors shall be provided with privacy locks sets, chrome one side and closet doors shall be provided with closet lock sets.
2. All exterior doors shall be hung on 3-3 1/2" x 3 1/2" butt hinges and provided with entrance lock set or dead bolt set.
3. Screen or storm doors shall have a safety door check. Windows shall have positive sash locks and lifts.

F. WINDOWS

1. Furnish and install new windows as specified on work write-up complete with sash locks and lifts. New windows shall comply with Georgia State Energy Code.
2. Repair or replace any interior and exterior areas affected by the installation of the new window.
3. Repair existing window shall include replacing all damaged, decayed or broken components, including sash, glass, hardware, putty, sash cord and weather stripping.

G. NEW WINDOW SCREENS

Wood or aluminum as specified, complete with aluminum wire hooks and hangers, properly fitted to opening. Repair existing window screen. Rescreen existing frame using aluminum screen wire. Replace or repair damaged components as necessary.

H. WEATHER STRIPPING AND THRESHOLD

1. Weather stripping shall be installed on all exterior doors.
2. Thresholds shall be installed at all exterior doors, set in caulking compound, firmly secured with counter-sunk screws and shall be weather tight.

I. EXTERIOR SIDING

1. Repair all cracked, decayed or deteriorated siding. Material shall be of a species suitable for its intended use, kiln dried, free from tool marks and other objectionable defects and shall match existing siding, butt joints and adjacent runs shall be staggered. New work shall be primed upon installation.
2. Exterior coverings including factory prefinished materials, shall be commercially produced material, recommended by its manufacturer for covering exterior surfaces of exterior walls and supplied with instructions for water tight application. Install in accordance with mfgs. instructions and provide written warranty.
3. CORNICES to be repaired shall include replacing all rotted and other deteriorated parts with new parts matching existing original work. This includes fascia, soffit, frieze and rake mold. New material shall be primed upon installation.

SECTION V continued

J. CLOSETS

1. Linen Closets shall be a minimum of 14" in depth and 18" in width. A minimum of four shelves spaced no closer than 12" apart, bottom shelf 18" to 24" above floor and topmost shelf not more than 74" above floor.
2. Clothes Closets shall have a minimum dimension of 2' in depth and 3' in width. Doors shall be installed with all hardware as required under "Doors". Bifold doors are subject to approval of the City. The hanging space shall be a minimum of 5' and the shelf shall not be over 74" above the floor. There shall be 2" clearance between rod and shelf.
3. Rod and Shelf: Each clothes closet shall contain a minimum of one rod and one shelf of suitable material and design provided that the finished product meets the following standards: The shelf shall support a uniformly distributed load of 30 lbs. per sq. ft. with vertical deflection not to exceed 1/4". The rod shall support 10 lbs. per linear foot with vertical deflection of not more than 1/4". Not more than one intermediate support may be provided for rods and shelves for 4 to 8 feet in length. Shelving material shall be 3/4" Pine, 8 or better, or 3/4" plywood edge with screen mold.

K. PANELING

1. Paneling to be installed as specified in the work write-up shall be a minimum of 1/4" in thickness and shall include the paneling, trim, furring, setting and putting nails, clean up and protection. Paneling shall be class 1 or 2 decorative hardboard or labeled hardwood plywood showing grade, species and finish.
2. Installation shall be in accordance with the mfgs. Recommendations and in a workmanlike manner.

L. INSULATION

1. Insulation indicated in the work write-up shall include: insulation, preparation of existing areas to receive insulation, cleanup and protection of work and certification of material.
2. Insulation material may be "Insulite", blown rock wool, blown fiber glass, rock wool batts and fiber glass batts: John Manville or equal. Batt shall be full-thick and blown wool shall be a minimum thickness to provide an R-19 rating. Provide minimum 1" airspace between roof decking and insulation baffle around perimeter of attic.
3. All insulation shall be installed as per mfg. recommendations and shall comply with Georgia State Energy Code.

M. DAMPPROOFING AND WATERPROOFING that is specifically indicated in the work write-up shall include, but not be limited to the following:

1. Sealing interior/exterior foundation walls to prevent the penetration of moisture and water.
2. Installation of drain tile where necessary.
3. Installation of vapor barrier under slab.
4. Concrete and brick sealers on exterior walls.

SECTION V continued

5. Installation of sump pumps in basement and crawl spaces where positive drainage cannot otherwise be obtained.
6. Materials used for waterproofing must be one that is manufactured specifically for that use, installed per mfg. recommendations and approved by the City prior to application.
7. Below grade coating must comply with Federal Spec. SS-A701. Below grad slab vapor barrier shall meet ASTM C173-69 standard.
8. Surfaces subject to coatings shall be completely dry and clean prior to application of coating. The application shall be in accordance with the manufacturers recommendations, using an approved applicator.
9. Adjoining or adjacent areas shall be protected.
10. To provide positive drainage the installation of sump pumps shall be mandatory where gravity flow positive drainage in a basement or crawl space cannot be obtained. Installation of a sump pump shall include: Grading crawl space to provide drainage to a low area where a concrete well shall be built. This well shall accommodate an automatic sump pump of adequate capacity A 110 volt outlet and discharge line to the exterior of the building is considered part of the installation.

SECTION VI

STUCCO, PLASTERING AND WALLBOARD

A. STUCCO

1. Exterior stucco work indicated on work write-up shall comply with ANSI "Standard Specifications for Portland Cement Stucco and Portland Cement Plastering." A42.2 71.
2. Metal lath shall weigh not less than 1.8 lbs. per sq. yd. and openings not in excess of 4 sq. inches shall be used. Felt shall be 15# type. Metal reinforcement with attached paper backing may be used provided it meets specifications for mesh and backing and is made especially for plastering.
3. Expansion joints shall be zinc sheet, US Gypsum or equal.
4. Wood framing and sheathing to receive stucco shall be properly constructed to provide a non-yielding structure.
5. Flashings shall be acceptable installed prior to beginning of plaster work, i.e., at tops and sides of all openings where projecting trim occurs and at all points where flashing can be used to prevent water from getting behind stucco.
6. Surfaces to be stuccoed shall be covered with 1.8 metal lath lapped at ends and sides a minimum of 1" and nailed 16" O.C. vertically and 6" O.C. horizontally. Wood surfaces shall be covered with 15# felt with 3" laps prior to installation of metal lath. Mesh shall be fured not less than 1/4" with galv. furring nails.
7. Apply two coats on masonry to a minimum thickness of 5/8". Apply three coats over wood surfaces to a minimum thickness of 7/8".

SECTION VI continued

8. Mortar for all coats shall be a mixture by volume of 1 part Portland Cement to not less than 3, nor more than 5 parts of damp loose aggregate. Finish coat color and texture to be approved by the owner before starting application.

B. PLASTERING materials shall be standard commercial brands.

1. Application and mix shall be in accordance with American Standard Specifications for Gypsum Plastering ASTM C28-68. Apply plaster in 3 coats or 2 coats double up work, minimum thickness 1/2".
2. Gypsum lath shall be applied with long dimensions across supports and with end joints staggered.
3. Nail lath with 12 or 13 gauge lath nails having approximately 3/8" heads with nails spaced not more than 4" O.C. Minimum of 4 nails each lath, 6 nails for 24" wide lath. Nails shall penetrate horizontal supports at least 1" and vertical supports 3/4".
4. Portland Cement Plaster shall not be applied over gypsum lath. Existing wood lath shall be securely nailed and wetted down prior to applying plaster.
5. Metal lath shall be applied in accordance with mfg. recommendations.
6. Wall board shall be U.S. Gypsum wall board or equal, carefully fitted and sized prior to nailing in place.
7. Installation shall be performed in accordance with mfg. recommendation.
8. 1/2" Wallboard shall be used unless otherwise specified.
9. M/R Moisture resistant 1/2" sheetrock shall be used on bath room walls.
10. Joint cement, fasteners, tape and corner bead shall be as recommended by wallboard mfg. and shall be applied as recommended.

C. ONE HOUR FIRE RESISTIVE CONSTRUCTION

Where required by Georgia State Building Code.

1. Partitions shall be at least 2 x 4 studs, spaced 16" O.C. covered with 5/8" type X gypsum board or 1/2" XXX gypsum.
2. The wall board shall be applied to both sides of the party wall and shall extend from floor to ceiling.
3. Ceiling shall be the same material as the walls and installed in accordance with mfg. recommendations. See Georgia State Building Code for exception.

SECTION VII

A. GLASS AND GLAZING

1. Windows shall be glazed or reglazed where required, with single strength clear glass, grade B.

SECTION VII continued

2. Door Lites and side lite glass shall be glazed with safety glass or tempered glass.
3. Putty shall be DAP or equal.
4. Glass shall be bedded in putty secured with glazing points and face puttied. All excess putty shall be removed and the glass left clean.
5. Mirrors shall be polished plate grade No. 1.

SECTION VIII

A. ROOFING AND SHEETMETAL

1. Repairing the roof shall include the replacement of decayed or missing components including decking, rafters, studs, ridge board, flashing, etc., and meet requirements of Georgia State Energy Code for Buildings.
2. Replacement of existing roof shall include the removal of all old roofing material, including felt, the repair, and if necessary, replacement of any roofing components, securely nailing the roof decking, installation of felt, flashings and roofing shingles.
3. Roofing shingles shall be Celotex 240# self sealing shingles or equal.
4. Asphalt shingles shall be installed in exact accordance with mfg. directions and shall have a written 15 year warranty.
5. Built up roofing when called for shall be installed in exact accordance with the mfg. directions and shall have a 10 year warranty.
6. Raised metal seams shall be flattened prior to installation of any new roofing.
7. Where “recoating” of existing roof is called for in the work write-up, all flashing shall be made water tight, bubbles shall be cut out and repaired, and at least one coat of tar and 1 ply of 30# felt added. Plys which are cut to remove bubbles, shall be replaced and a coat of tar applied between each ply.

B. FLASHING

1. Upon installation of roofing shingles, all flashings shall be replaced; including chimneys, valleys, eaves drips and any other critical areas.
2. Flashing or counter flashing material shall be a minimum of 26 gauge galvanized or 28 gauge aluminum.
3. All vents and stacks projecting through roof shall have approved flashing.

SECTION VIII continued

C. GUTTERS AND DOWNSPOUTS

1. Gutters and downspouts shall be no less than 26 gauge galvanized or aluminum. Gutter shall be 5" O.G. unless otherwise stated. The pitch shall be not less than 1/16" per ft. The downspouts shall be 3" and extend to within 4" of the finish grade, and securely fastened. The splash-block shall be concrete. Minimum size 12"x 24".

SECTION IX

A. CAULKING

1. "Exterior joints around windows and door frames; openings between wall panels; openings at penetrations of utility services through walls, floors and roofs; and all other such openings in the building envelope shall be caulked, gasketed, weather-stripped or otherwise sealed in an approved manner."
2. Caulking material used shall be the proper material as recommended and installed in accordance with the mfg. instructions.
3. Caulking shall be a smooth bead, uniform, straight, clean, and crisp.

SECTION X

A. PAINTING AND DECORATING

1. All paint and other finish materials shall be of a good quality, manufactured by a nationally recognized mfg., i.e., Glidden, Sherwin Williams, Pittsburg or approved equal.

B. PREPARATION OF SURFACE

1. Plaster or wall board shall be sound, smooth and free from holes, cracks and irregularities. All old wall paper shall be removed entirely unless otherwise specifically noted in the work write-up; in any case, all loose wall paper shall be removed and the remaining edges "feathered."
2. Wood surfaces to be painted shall be cleaned to remove loose and scaling paint and rough spots. Where previous coats have chipped and peeled, the edges shall be sanded to a feather edge before new paint is applied. Puttying and caulking shall be done prior to the finish coat of paint.
3. All colors shall be approved by the owner prior to commencing painting.
4. All materials shall be delivered to the job in the mfg. sealed containers, containing labels giving mfg. name, type of paint, color, etc.
5. Application shall be by brush or roller and shall be applied uniformly, smooth and free from runs, sags, foreign matter, defective brushing or rolling. Edges of paint adjoining other material or colors shall be straight, sharp and clean.
6. Exterior paint will not be applied in damp rainy weather or when the temperature is below 40° F. Materials to be painted shall be clean and dry. Paint application shall be as per the work write-up.

SECTION X continued

7. On previously painted surfaces one coat application may suffice, provided it covers the previous finish.
8. On new work, one coat of primer and 2 coats finish material will be applied. The sides and all edges of exterior doors shall be primed within 3 days after being hung.
9. All paint application shall be in accordance with the mfg. recommendations.

GENERAL

“Paint” shall also mean varnish, lacquer, shellac, urethane finish or other material as specified on the work *write-up*. All paint shall be that which is intended for the purpose used, i.e., masonry paint on masonry, porch and deck enamel on steps and porches, rust-inhibitor paint on wrought iron, exterior, non chalking paint on wood trim, etc.

Surfaces not scheduled for paint shall be protected, i.e., shrubbery, hardware, floors, roofing, screens, glass, etc.

Mold and mildew shall be removed and neutralized by washing with a solution of 2 oz. trisodium phosphate, 8 oz. sodium hypochloride (clorox) to 1 gal. of warm water. Rinse with clear water and allow to dry thoroughly before painting.

SECTION XI

FLOORS

A. HARDWOOD FLOORS

1. All broken, damaged or deteriorated flooring shall be replaced with lumber that matches the species, size and color of the adjacent flooring. The joints shall be staggered. Floors shall be sanded to a smooth surface, with the grain, and filled with filler recommended by the mfg.
2. Renail existing flooring as necessary to provide a sound floor. Apply one coat of sanding sealer and two coats of finish as called for on the work write-up. The finish may be gym finish varnish, polyurethane or other suitable finish.
3. All finish material shall be applied in accordance with mfg. instructions.

B. RESILIENT FLOORING

1. Linoleum shall be Armstrong or equal. Tile shall be vinyl, vinyl asbestos or rubber with a minimum thickness of 3/32”, and shall meet Federal specifications SS-T-312.
2. The color shall be selected by the owner.
3. Installation of all floor covering, including adhesive shall be in accordance with the mfg. recommendations.
4. Material shall be stored in original containers at not less than 70 degrees F for at least 24 hours immediately prior to installation. Maintain room temperature between 70 degrees F and 90 degrees F for 24 hours prior to installation and 48 hours after installation.

SECTION XI continued

5. Border tile or linoleum shall fit within 1/16" of abutting surfaces.
6. Clean and wax as recommended by the mfg.

SECTION XII

PLUMBING

- A. PLUMBING FIXTURES, equipment and material shall comply with and be installed in accordance with current applicable plumbing code or the Georgia State Plumbing Code.
1. All vents protruding through the roof shall be properly flashed.
 2. Valves shall be 150# brass with ends similar to fittings. Valves shall be provided at each fixture or each piece of equipment.
 3. Unions shall be provided to permit removal of equipment without cutting pipe.
 4. Gas pipe shall be black steel pipe installed in accordance with NFPA Standard No. 54.
 5. Provide 125# brass gas stops where required.
- B. WATER HEATER shall meet requirements of the Georgia State Energy Code, and be equal to the American Standard "Acroglass" standard, glass lined, complete with all controls and with a written 10 year tank warranty. The type (gas or electricity) and capacity will be given on the work write-up, or replacement will be with size and type required by number of bedrooms and baths.
1. An approved pressure-temperature relief valve with a 3/4" discharge line shall be provided.
- C. PLUMBING FIXTURES which exist and are to remain shall be placed in good working order.
1. Missing or defective parts shall be replaced.
 2. Fixtures shall be left in clean sanitary condition.
 3. Fittings shall be chrome plated and supplies to each fixture shall be equipped with stop valves.
- D. BATHROOM FIXTURES called for in the work write-up shall be:
1. Water closet, vitreous china, free standing, close coupled, closet combination with reverse trap, suspended rear shelf, tank cover, china or porcelain stud caps, complete tank fittings and supply stop valve and designed to use a maximum of 3,5 gal. per flush.
 2. Lavatory, enameled cast iron, front overflow, acid resisting, complete with hanger, supply lines, P trap and trim.
 3. Bath tub 5' long, enameled steel with over rim bath filler, or fiberglass tub enclosure with shower rod.
 4. New shower heads shall be designed to use a maximum of 3.0 gallons per min. @ 60 p.s.i.

SECTION XII continued

- E. GENERAL PLUMBING system including sewers shall operate free of fouling and clogging and not have cross connections which permit contamination of water supply or back siphonage between fixtures. Waste lines shall be tied-in to an approved sewer system. Bath accessories shall include:
1. Medicine cabinet, minimum size, 12" x 18" with plate glass mirror (1) or plate glass mirror over 30" vanity.
 2. Soap and Grab (1)
 3. Toilet Paper Holder (1)
 4. 18" Towel Bar (1)
 5. 24" Towel Bar (1)

SECTION XIII

HEATING SYSTEM

New heating system shall be Bryant, Luxaire or equivalent meeting requirements of Georgia State Energy Code. A 1 year warranty shall be provided. Installation shall be in accordance with City code requirements. The heating system shall be adequate to heat all rooms to a temperature of 70 degree F 3 feet above the floor when the outside temperature is 10 degrees F. Space heaters, floor furnaces and all other gas-fired fixtures shall be properly vented.

"All work shall conform to requirements of Georgia State Energy and Heating & Air Conditioning Codes."

SECTION XIV

ELECTRICAL

- A. The minimum distribution service panel shall be 60 amps. For demands in excess of 20 kilowatts, a service panel in excess of 100 amps shall be installed.
1. All Electrical panels, wiring, fixtures and equipment shall be installed within the requirements of the National Electrical code (or City code).
 2. Existing wiring, equipment or fixtures not to be used shall be disconnected and/or removed. Existing electrical devices and material in good condition and meeting code requirements may be left in service.
- B. Light fixtures shall be installed by the contractor as required. The work write-up shall indicate which fixtures are to be replaced and shall stipulate the allowance for fixtures. The owner shall select the fixtures and shall pay any additional cost above the allowance.

SECTION XIV continued

- C. NOTE: It shall be the contractor's responsibility to determine the additional wiring, outlets, panel size, etc., to conform to City code and his bid price shall include these costs:
1. The bathroom fixtures shall be controlled by a wall switch not readily accessible from the tub or shower.
 2. Every habitable room shall have one overhead light fixture and two separate wall outlets, or three wall outlets, one of which is controlled by a wall switch.

SECTION XV

LANDSCAPING

1. ROUGH GRADING: Fill material shall be free of debris or other detrimental material. All fill shall be compacted to a density that will avoid damaging settlement. Fill shall be placed when ground is frost free and weather is favorable.
2. TOP SOIL: shall be a minimum of 4 inches (compacted depth). Free of stones, debris, and other material detrimental to plants. The surface soil shall be compacted lightly to minimize settlement. Top soil shall be placed when ground is frost free and weather is favorable.
3. SEEDING: Seed quality shall be a minimum purity of 85%, minimum germination of 80% and weed content not exceeding a maximum of 1/2%. Seed mixture shall be not less than 85% (by weight) permanent grass and 15% (by weight) annual grass.
 - a. Application -Rate of spread as recommended by the producer but not less than 4 pounds per 1,000 square feet. Roll with a light roller and water thoroughly with a fine spray, avoiding erosion of seed bed. Seeding shall be done when the ground is frost free and weather is favorable.
4. SODDING: Sod shall be fresh cut, taken from a thick stand of permanent lawn grass, reasonably free from weeds and coarse grass. It shall be at least one inch thick, uniform in thickness and cut in strips.
 - a. Application - Lay sod in strips avoiding wide joints. Sodding shall be done when ground is frost free and weather is favorable.
5. FINISH GRADE: Minimum fall of protective slope around buildings shall be 2% for a minimum of 4 feet. Grades from 3 to 1 to 2 to 1 shall be sodded. Maximum slope shall be 2 to 1.

Grading shall be accomplished to allow drainage of surface water away from buildings and off site.

SECTION XVI

TILE

- A. Ceramic wall tile shall be Mosaic standard grade or equal, 4 1/4" x 4 1/4" glazed with matching trim and accessories, unless otherwise specified.
- B. Floor tile shall be Mosaic or equal, 1" x 1/4" unglazed, Hexagon floor tile, or 4 1/4" x 4 1/4" unglazed floor tile unless otherwise specified.
- C. Tile shall be installed in accordance with mfg. recommendations including bedding agents, adhesives and grout.
 - 1. Wall tile shall be installed in mortar or on water resistant wall board in accordance with mfg. instructions.
 - 2. Ceramic tile floors installed on slab shall be with cement mortar according to ANSI A108.3. Ceramic tile floors installed on plywood base shall conform to ANSI A108.4.
 - 3. Align joints in walls and follow horizontally and vertically throughout entire job. Layout work to minimize cut tile. "Average" out work throughout entire dimension.
 - 4. Align joints in floor tile at right angle to each other and parallel to walls.
 - 5. Provide all trim pieces required.
 - 6. All surfaces shall be true, straight, flush and free from defective or discolored tile.
 - 7. Grout, polish and clean tile according to mfg. instructions. Use of acid is not permitted.

CARPET

- A. All carpet and pad shall meet HUD FHA requirements and a written mfg. certification shall be submitted, or carpet shall be labeled per U.M. 44C.
 - 1. Colors shall be selected and approved by the owner prior to installation.
 - 2. Carpet shall not be installed until all interior work is completed.

TERMITE TREATMENT

- A. Where infestation of termites, borers or powder post beetles is determined, such infestation shall be eliminated by treating in accordance with the requirements of the State of Georgia, Pest Control Commission and damage shall be repaired.
- B. A certification by the exterminator shall include: The property is clear of all vermin infestation; should infestation occur within 1 year from the date of treatment, the premises shall be retreated at no cost to the owner; furthermore, should damage occur as a result of infestation during this period, the exterminator shall repair such damage at no cost to the owner.

EXHIBIT D

EQUAL EMPLOYMENT OPPORTUNITY

Federally assisted construction contracts, including contracts for demolition, alteration, extension, and repair, are required to include an equal employment opportunity clause under which the contractor agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin; to make his nondiscrimination policy known to employees and applicants; and to include the prescribed equal employment opportunity clause in certain subcontracts. A contract for an amount over \$10,000 is subject to Executive Order 11246, and to the regulations of the Department of Labor and requires the inclusion of additional contract terms relating to the maintenance of records and the submission of reports that may be required.

Contracts subject to Executive Order 11246 includes the following Language:

During the performance of this Contract, The Contractor agrees as follows:

- (a). The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and after October 13, 1968, because of race, color, religion, sex or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color or national origin, and after October 13, 1968, without regard to race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Local Public Agency setting forth the provisions of this nondiscrimination clause.
- (b). The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color or national origin, and after October 13, 1968, without regard to race, color, religion, sex or national origin.
- (c). The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract for understanding, a notice, to be provided, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965; and shall post copies of the notice in conspicuous places available to all employees and applicants for employment.
- (d). The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (e). The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor or the Secretary of Housing and Urban Development pursuant thereto and will permit access to his books, records, and accounts by the local Public Agency, the Secretary of Housing and Urban Development, and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

EXHIBIT D

EQUAL EMPLOYMENT OPPORTUNITY continued

- (f). In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government Contracts or federally assisted construction contracts in accordance with procedures authorized in Executive order 11246 of September 24, 1965, or by rules, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- (g) The Contractor will include the provisions of paragraphs, A through G in every subcontractor purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Local Public Agency or the Department of Housing and Urban Development may direct as a means of enforcing such provisions, including sanctions for noncompliance:
Provided. However, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Local Public Agency or the Department of Housing and Urban Development, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.